

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/563,637
Source: IFWP
Date Processed by STIC: 02/08/2007

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IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/563,637

DATE: 02/08/2007
TIME: 11:51:09

Input Set : A:\19460.seq.txt
Output Set: N:\CRF4\02082007\J563637.raw

3 <110> APPLICANT: Franco, Christopher Milton Mathew
4 Coombs, Justin Taylor
6 <120> TITLE OF INVENTION: A method and agents for improving plant productivity involving

7 endophytic actinomycetes and metabolites thereof
9 <130> FILE REFERENCE: 19460
11 <140> CURRENT APPLICATION NUMBER: 10/563,637
12 <141> CURRENT FILING DATE: 2006-01-06
14 <160> NUMBER OF SEQ ID NOS: 33
16 <170> SOFTWARE: PatentIn version 3.1
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 1158
20 <212> TYPE: DNA
21 <213> ORGANISM: actinomycete
23 <220> FEATURE:
24 <221> NAME/KEY: misc_feature
25 <222> LOCATION: (1)..(1155)
26 <223> OTHER INFORMATION: "n" is unknown nucleotide
29 <400> SEQUENCE: 1

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32	ttaaacacntg antaacctgc ccctgactct gggataancc tggaaactg ggtctaatac	120
34	cgatacaac catttcnc atggatggt ggtggaaant tttncgggtt gggatgggc	180
36	tcgcggccta tcacctgtt ggtggggta tggcctacca aggcgacgaa cggtagcccg	240
38	cctgagaggg cgaccggcca cactggact gagacaccgc cggactct acggaggca	300
40	gcactgggaa atattgccc tggcgaaag cctgacgcag ngacgcccgc tggggatga	360
42	cggcttngg gttttaaacc tntttcagca gggacaagt tgacgtgtac ctgtagaaga	420
44	agcgcggct aatangtgc cagcagccgc gtaatangt agggcgcgag cgtntccgg	480
46	aattattggg cgtaaagagt tttaggtgg cttgtgcgt ttgcgtgaa agccgtggc	540
48	ttaantacgg gtttgcggtg gatacggca ggctagaggc tggtagggc aagcggatt	600
50	cctgggttag cggtaaatg cgcagatattc aggagaaca cgggtggcga aggccgcttg	660
52	ctggggccagt tctgacggtg aggagcggaaa gcgtggggag cgaacaggat tagataccct	720
54	ggtgtccac gctgtaaacg ttggcgcta ggtgtgggg tcttccacga tctctgtgcc	780
56	gtagctaacg cattaagcgc cccgcctggg gatcggcc gcaaggctaa aactcaaagg	840
58	aattgacggg ggccgcaca agcggcggag catgtgtctt aattcgcacgc aacgcgaaga	900
60	accttaccaa ggtttgacat acaccggaaa cactcanana tgggtgcctc ctttggactg	960
62	gtgtacaggt ggtgcattgc tgcnnccacc ctcgtgtcg nagatgtngg gttaagtccc	1020
64	gcaacgancg caacccttgg ttccatgttg ccagcacncc ctttgnngtg gtggggacnc	1080
66	atggganaat gcccgggtcn actcnggagg aaggtgggaa tgacgtcaag tnatcngcc	1140
68	ccttatgttc ttgnngtg	1158
71 <210>	SEQ ID NO: 2	
72 <211>	LENGTH: 1437	
73 <212>	TYPE: DNA	
74 <213>	ORGANISM: actinomycete	
76 <220>	FEATURE:	

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77 <221> NAME/KEY: misc_feature.
 78 <222> LOCATION: (1)..(1437)
 79 <223> OTHER INFORMATION: "n" is unknown nucleotide
 82 <400> SEQUENCE: 2

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85	gcgaacgggt	gagtaacacg	tgggcaatct	gccctcaact	ctgggacaag	ccctggaaac	120
W--> 87	gggtctaat	accggataac	actnctgctc	tcatggcag	gggttaaaag	ctccggcggt	180
89	gaaggatgag	cccgcgcct	atcagcttgc	tggtgaggta	atggctcacc	aaggcgacga	240
91	cggtagccg	gcctgagagg	gcgaccggcc	acactgggac	tgagacacgg	cccagactcc	300
93	tacgggaggc	agcagtgggg	aatattgcaa	caatggcga	aagcctgatg	cagcgacgccc	360
95	gcgtgaggga	tgacggcctt	cgggttgtaa	acctcttca	gcagggaaaga	agcggaaagtg	420
97	acggtacctg	cagaagaagc	gccggctaac	tacgtgccag	cagccgcgt	aatacgttagg	480
99	gcgcaagcgt	tgtccggaat	tattggcgt	aaagagctt	taggcggctt	gtcacgtcgg	540
101	gtgtgaaagc	ccgggctta	accccgggc	tgcattcgat	acgggctagc	tagagtgtgg	600
103	taggggagat	cggaaattcct	ggtgtagcgg	tgaatgcgc	agatatcagg	aggaacacccg	660
105	gtggcgaagg	cggatctctg	gccattact	gacgctgagg	agcgaaagcg	tgggagcga	720
107	acaggattag	ataccctggt	agtccacgccc	gtaaacggtg	ggaacttaggt	gttggcgaca	780
109	ttccacgtcg	tcggtgccgc	agctaacgca	ttaagttccc	cgcctgggaa	gtacggccgc	840
111	aaggctaaaa	ctcaaaggaa	ttgacggggg	cccgacacaag	cagcggagca	tgtggcttaa	900
113	ttcgacgcaa	cgcgaagaac	cttaccaagg	cttgacatac	accggaaagc	atcagagatg	960
115	gtccccccct	tgtggtcgg	tgtacaggtg	gtgcatggct	gtcgtcagct	cgtgtcgtga	1020
117	gatgttgggt	taagtccgc	aacgagcgc	acccttgttc	tgtgttgc	gcatgcccctt	1080
119	cgggtgatg	gggactcaca	ggagaccggc	gggtcaact	cggaggaagg	tgggacgac	1140
121	gtcaagtcat	catgccccctt	atgtcttggg	ctgcacacgt	gctacaatgg	ccgttacaaa	1200
123	gagctgcgt	accgtgaggt	ggagcgaatc	tcaaaaagcc	ggtctcagtt	cggattgggg	1260
125	tctgcaactc	gaccatcgt	agtccggagg	gtaataatc	gcanatcagc	attgctgcgg	1320
127	tgaatacgtt	cccgccctt	gtacacaccc	cccgtcacgt	cacgaaagtc	ggttaacaccc	1380
129	gaagccgggt	gccaacccct	tgtggaggg	agctgtcgaa	ggtggactg	gctgatt	1437
132	<210> SEQ ID NO: 3						
133	<211> LENGTH: 317						
134	<212> TYPE: DNA						
135	<213> ORGANISM: actinomycete						
137	<220> FEATURE:						
138	<221> NAME/KEY: misc_feature						
139	<222> LOCATION: (1)..(311)						
140	<223> OTHER INFORMATION: "n" is unknown nucleotide						
143	<400> SEQUENCE: 3						
W--> 144	gtaatggccc	anaaaaaccgc	tttcgcccacc	ggtgttcctc	ctgatatctg	cgcatttcac	60
146	cgttacacca	ggaattccna	tctccctac	cacactctag	ctagcccgt	tcnaatgc	120
148	actcgggggt	aagcccnag	ctttcacatc	cgacgtgaca	agccgcctac	aanccttta	180
150	cggccaataa	ttccgganaa	cgctcgacc	ctacntntta	ccgaggctgc	tggcncgtnt	240
152	ttagccgggt	cttctctgc	aggtaccgtc	acttcgctt	cttccctgtct	naaaaagggtt	300
154	tacaacccta	ngggcgt					317
157	<210> SEQ ID NO: 4						
158	<211> LENGTH: 1048						
159	<212> TYPE: DNA						
160	<213> ORGANISM: actinomycete						
162	<220> FEATURE:						
163	<221> NAME/KEY: misc_feature						

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164 <222> LOCATION: (1)..(1043)
 165 <223> OTHER INFORMATION: "n" is unknown nucleotide
 168 <400> SEQUENCE: 4
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 171 ggtacctgca gaagaagcgc cgnctaacta cggggcagca tccgcgtta tacgttagggc 120
 173 gcaatcggtt tccggattt ntggggcgtaa agagntcgta ggcggcttat cacgtcggtt 180
 175 gtggaaagccc ggggcttaag ccccggtct gcatcgata cgggctagct agantntgnt 240
 177 agggggagatc ggaattcctg gtgtagcgtt gaaatgcgc gatatcagga ggaacaccgg 300
 179 tggcgaaggc ggatctctgg gccattactg acgctgagga gcgaaagcgt ggggagcgaa 360
 181 caggattaga taccctggta gtccacgcgg taaacgggtt gaaactaggtt ttggcgacat 420
 183 tccacgtcgt cggtggcgca gctaacgcatt taagttcccc gcctggggag tacggccgca 480
 185 aggctaaaac tcaaaggaat tgacgggggc cgcacacaagc acgcggagcat gtggcttaat 540
 187 tgcacgcac accgaaacc ttaccaaggc ttgacatata cggaaagca tcagagatgg 600
 189 tgcggccctt gtggcgggtt tacaggtgtt gcatggctgt cgtcagctcg tgcgtgaga 660
 191 tgggggttta agtcccgca cgcacgcac cctgggttgcgttgcgcg catggcccttc 720
 193 ggggtgatgg ggactcacag gagaacgcgg gggcaactc ggaggaaggt ggggacgacg 780
 195 tcaagtcatc atgcccctta tgcacacgtt gtcacacgtt ctacaatggc aggtaaatga 840
 197 gctgcgatac cgtgagggtgg agcgaatctc aaaaaagcct gtctcanttc ggattggggt 900
 199 ctgnaantcg accccatgaa agtcggagtt gctaattatc ccagatcaac attgctggcg 960
 201 gtgaatacgt tcccgccggcc ttggtaaaca cgcggcgtca angtnaagaa agtcgggtaa 1020
 203 caccggaaan cgggtgggccc aancctt 1048
 206 <210> SEQ ID NO: 5
 207 <211> LENGTH: 508
 208 <212> TYPE: DNA
 209 <213> ORGANISM: actinomycete
 211 <220> FEATURE:
 212 <221> NAME/KEY: misc_feature
 213 <222> LOCATION: (1)..(472)
 214 <223> OTHER INFORMATION: "n" is unknown nucleotide
 217 <400> SEQUENCE: 5
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 222 cccgggcttt cacacccgac ntgacaagcc gcctacaaac tctttacgccc caataattcc 180
 224 ggacaacgcgt tgccctac ntattaccgc ggctgctggc acntatttag cggcgcttc 240
 226 ttctgcaggt accgtcaatt tgccttcttc cctgctgaaa aaggtttaca accgaaaggc 300
 228 cgtcatccct cacggcggtt cgctgcatttca ggcttcgccc cattgtgcaa tattccccac 360
 230 tgcgtccttc cntaggaatc tggggcggtt ctcaatccag tgcgtccttc cccctctcng 420
 232 gccggctacc gtcntccctt gtnaccatt antcaccaaa caactgatag gncgcgggct 480
 234 catcttcacg cgggaactttt caaccacc 508
 237 <210> SEQ ID NO: 6
 238 <211> LENGTH: 1420
 239 <212> TYPE: DNA
 240 <213> ORGANISM: actinomycete
 242 <400> SEQUENCE: 6
 243 ggcggcgtgc ttaacacatg caagtcgaac gatgaagccc ttcgggggtgg attagtggcg 60
 245 aacgggtgag taacacgtgg gcaatctgcc ctgcgttgcgg gacaagccc tggaaacggg 120
 247 gtctaatacc ggataacgatt cggggaggcat ctgcgttgcgg tggaaagctc cggcggtgaa 180
 249 ggatgagccc gcccgttgcgg gatgttgcgg tggtaatggc ctaccaaggc gacgacgggt 240
 251 agccggcctg agagggcgac cggccacact gggactgaga cacggccag actcctacgg 300

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253	gaggcagcag	tgggaatat	tgcacaatgg	gcgaaagcct	gatgcagcga	cgccgcgtga	360	
255	gggatgacgg	ccttcgggtt	gtaaacctt	ttcagcaggg	aagaagcggag	agtgacggta	420	
257	cctgcagaag	aagcggccggc	taactacgtg	ccagcagccg	cggttaatacg	tagggcgcaa	480	
259	gctgttgcgg	gaattattgg	gcgttaaagag	ctcgttaggcg	gcttgcacg	tcgggtgtga	540	
261	aagccccgggg	cttaaccccg	ggtctgcac	cgatacgggc	aggctagagt	gtgttagggg	600	
263	agatcggaaat	tcctgggtta	gcgggtaaaat	gcccagat	caggaggaac	accgggtggcg	660	
265	aaggcggatc	tctggccat	tactgacgt	gaggagcga	agcgtggga	gccaacaggaa	720	
267	ttagataccc	tggttagtcca	cgccgttaac	gttgaacta	ggtgttggcg	acattccacg	780	
269	tcgtcggtgc	cgcagctaac	gcattaagg	ccccgcctgg	ggagtagccg	cgcaaggcta	840	
271	aaactcaaaag	gaattgacgg	gggcccgcac	aagcagcga	gcatgtggct	taattcgacg	900	
273	caacgcgaag	aacttacca	aggcttgaca	tataccggaa	agcgcaggag	atggtgc	960	
275	ccttgtggtc	ggtatacagg	tggtgcatgg	ctgtcgtag	ctcgtgtcg	gagatgttgg	1020	
277	gttaagtccc	gcaacgagcg	caacccttgc	cctgtgttgc	cagcatgccc	ttcgggggtga	1080	
279	tggggactca	caggagacccg	ccgggggtcaa	ctcgaggaa	ggtggggacg	acgtcaagtc	1140	
281	atcatgcccc	ttatgtcttgc	ggctgcacac	gtgctacaat	ggccggta	aagagctgcg	1200	
283	atgcccgttag	gcggagcggaa	tctcaaaaag	ccggctcg	ttcggattgg	ggtctgcaac	1260	
285	tcgacccat	gaagtcggag	ttgcttagtaa	tcgcagatca	gcatgtgc	ggtgaatacg	1320	
287	ttcccgcc	ttgtacacac	cgcccgta	gtcaca	tcggtaaac	ccgaagccgg	1380	
289	tggcccaacc	cctcggggag	ggagctgtcg	aagggtggac			1420	
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294	<212>	TYPE:	DNA					
295	<213>	ORGANISM:	actinomycete					
297	<220>	FEATURE:						
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299	<222>	LOCATION:	(1)..(1217)					
300	<223>	OTHER INFORMATION:	"n" is unknown nucleotide					
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	306	cgnccacac	tgggaatgng	anacggccca	gaatcctacg	ggaggcagca	nngggaaana	120
	308	ttgcacaang	ggcgaagcc	tgatgcag	angccgcgt	agggaaagacg	gccttgggt	180
	310	tgtaaacctn	tttnagcagg	gaagaagcga	aagtgcacgt	acctgcagaa	gaagcgcgg	240
	312	ctaantangt	gccagcagcc	gcggtaatan	gtagggcga	agcgttgc	ggaattattg	300
	314	ggcgttaaaga	gctttaggc	ggcttgc	gtngatgt	aaagccccc	gcttaacccc	360
	316	gggtttgcat	ttgatacggg	ctagctagag	tgtgttaggg	gagatngaa	ttctgtgt	420
	318	agcggtaaa	tgcgcagata	tcaggagggaa	caccggcgc	gaaggcggat	ctctggcca	480
	320	ttaactgacgc	tgaggagcga	aagcgtgggg	agcgaacagg	attagatacc	ctgttagtcc	540
	322	acgcgtaaa	cgttggaaac	taggtgttgc	cgacattca	cgtcgtcg	gcccagcta	600
	324	acgcattaa	ttccccgcct	ggggagta	gccgcaggc	taaaactcaa	aggaattgac	660
	326	ggggccgc	acaaggcagcg	gagcatgttgc	cttaattcga	cgcaacgcga	agaaccttac	720
	328	caaggcttga	catataccgg	aaagcatcg	agatgttgc	ccccctgtgg	tcggtataca	780
	330	ggtgggtcat	ggctgtcg	agctcg	gtgagatgtt	gggttaagtc	ccgcaacgcg	840
	332	cgcaaccctt	gttctgtgtt	gccagcatgc	ccttcgggt	gatggggact	cacaggagac	900
	334	tggcggggtc	aactcggagg	aagggtggga	cgacgtca	tcatcatgc	ccttatgtct	960
	336	tgggctgca	cacgtgtac	aatggccgt	acaatgagct	gcgtgcgc	gaggcggagc	1020
	338	gaatctcaaa	aagccgtct	cagtccgat	tggggctcg	naactcgacc	ccatgaantc	1080
	340	ggagttgtca	ataatccaa	attcancatt	ggtgcggta	atacttcccg	ggcctggta	1140
	342	acnaccgccc	gtcaactcac	gaaagtgcgt	naaaccggaa	accgggtggc	caacccttg	1200
	344	tgggaaggaa	ctggccnaag	tggactg	gattggac			1239

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347 <210> SEQ ID NO: 8
 348 <211> LENGTH: 431
 349 <212> TYPE: DNA
 350 <213> ORGANISM: actinomycete
 352 <220> FEATURE:
 353 <221> NAME/KEY: misc_feature
 354 <222> LOCATION: (1)..(424)
 355 <223> OTHER INFORMATION: "n" is unknown nucleotide
 358 <400> SEQUENCE: 8

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363	cgggctttca	catccnacgt	gacaagccgc	ctacaanctc	tttacgccc	ataattccgg	180											
365	acaacgcttg	cgcctacnt	attaccgggg	ctgctggcac	ntat	tttagcc	ggcgcttctt	240										
367	ctgcaggta	cgtcacttcc	gctncttccc	tgctgaaana	ggttacaac	ccaaaggccn	300											
369	tcatccctcn	ccggcncnt	tgcnctcngc	ttncnccat	tgttcaannt	tcccactgc	360											
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384	<223>	OTHER INFORMATION: "n" is unknown nucleotide																
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392	cnaatgc	aaa	cccggggtta	ancccccggc	tttacatcc	nacntgacaa	ggccctaca	180										
394	anctcttac	gcccataat	tccggacaac	gttgcnc	tacttattac	cgcggctgct	240											
396	ggca	cttatt	tagccggcgc	ttcttctgca	ggtaccgtca	cttcgcttc	ttccctgctn	300										
398	aaaaagg	ttt	acaaccnaa	gcccg	cctcacgcgg	cntcg	tcaggcttc	360										
400	ncccattgt	gt	caatattccc	cactg	gtccgttagga	ttctggccg	tntctcatc	420										
402	ccantgt	ggc	cggtcgccct	ctcaggccgg	ctaccg	tcnccttgg	aggccattac	480										
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406	tccat	gcggg	anaaaattgtt	ntccgg	tattaa	aaacccgtt	tccagg	600										
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421	ctgg	aaac	gg	tctaa	atac	ccgata	acac	tct	gtccc	gc	atgg	gac	gggg	gtt	gaa	agct	180	
423	ccgg	cgg	gtt	ggt	ccat	cag	ttgtt	gt	gggg	taat	ggc	ctt	acccaa	240				
425	ggcg	acg	ac	gtt	ggcc	ctg	aggg	ggc	gac	ggcc	act	ggg	act	gg	ag	acac	300	
427	cagact	ccta	cg	gg	agg	cg	ag	tgt	gggg	aa	tatt	gcaca	aa	tg	gg	cgaa	ag	360
429	cgac	gccc	cg	tg	agg	gat	ga	cg	gg	c	t	ttt	c	at	cc	acc	acc	420

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:1; N Pos. 1132, 1136, 1154, 1156
Seq#:2; N Pos. 144, 1304
Seq#:3; N Pos. 12, 79, 113, 138, 173, 198, 215, 217, 235, 239, 291, 311
Seq#:4; N Pos. 15, 31, 35, 59, 83, 141, 155, 234, 236, 239, 887, 904, 907, 1002, 1005
Seq#:4; N Pos. 1030, 1043
Seq#:5; N Pos. 65, 86, 90, 119, 141, 201, 223, 372, 419, 434, 444, 452, 472
Seq#:7; N Pos. 5, 14, 16, 31, 40, 43, 46, 52, 64, 79, 82, 111, 112, 119, 129, 149, 152, 190
Seq#:7; N Pos. 194, 245, 248, 270, 330, 333, 406, 1061, 1078, 1106, 1143, 1171, 1217
Seq#:8; N Pos. 63, 136, 157, 199, 221, 264, 279, 300, 310, 316, 319, 324, 327, 333, 335
Seq#:8; N Pos. 348, 349, 362, 385, 398, 401, 417, 424
Seq#:9; N Pos. 10, 88, 122, 142, 161, 164, 182, 217, 300, 318, 342, 361, 412, 424, 460
Seq#:9; N Pos. 463, 495, 540, 552, 561, 588, 615, 637, 640
Seq#:11; N Pos. 63, 84, 97, 139, 157, 166, 199, 221, 303, 393, 399, 401, 425, 449, 457
Seq#:11; N Pos. 465, 485, 487, 499
Seq#:12; N Pos. 5, 14, 30, 66, 68, 133, 146, 158, 190, 272, 342, 366, 384, 520, 523, 542
Seq#:12; N Pos. 575, 596, 808, 834, 860, 873, 895, 964, 971, 982, 1034, 1042, 1052, 1055
Seq#:12; N Pos. 1070, 1089, 1094, 1112, 1144
Seq#:13; N Pos. 6, 13, 17, 22, 28, 37, 39, 57, 61, 84, 100, 104, 118, 239, 245, 411, 433
Seq#:13; N Pos. 475, 493
Seq#:14; N Pos. 75, 80, 997, 1382
Seq#:15; N Pos. 63, 88, 97, 136, 139, 141, 146, 299, 317, 374, 376, 387, 393, 405, 438
Seq#:15; N Pos. 442, 446, 455, 456, 530, 533, 547
Seq#:16; N Pos. 149, 251, 571, 582, 653, 798, 826, 838, 1362
Seq#:17; N Pos. 638
Seq#:18; N Pos. 9, 20, 23, 57, 59, 106, 122, 124, 183, 432, 454, 517, 674, 698, 704, 747
Seq#:18; N Pos. 772, 773, 781, 828, 844, 846, 847, 879, 883, 889, 973, 1039, 1045, 1223
Seq#:18; N Pos. 1367
Seq#:19; N Pos. 61, 98, 112, 139, 168, 249, 363, 421, 443, 503, 579, 687, 923, 954, 1000
Seq#:19; N Pos. 1017, 1035, 1037, 1051, 1069, 1077, 1106, 1113, 1114, 1140, 1153, 1156
Seq#:20; N Pos. 769, 843, 902, 911, 926, 1112, 1182, 1206, 1207, 1331, 1341, 1392, 1404
Seq#:21; N Pos. 6, 306, 391, 402, 431
Seq#:22; N Pos. 6, 18, 25, 184, 275, 324, 363, 369, 382, 385, 394, 433, 469, 493, 498, 516
Seq#:22; N Pos. 522, 534, 564, 573, 598, 603, 625, 633, 638, 643
Seq#:23; N Pos. 520, 523, 593, 623, 631, 643, 648
Seq#:24; N Pos. 9, 15, 376, 385, 424, 485, 490, 505, 521, 557, 565, 580, 595, 625, 629
Seq#:24; N Pos. 646, 666
Seq#:25; N Pos. 459, 485, 490, 506, 518, 540, 567, 658
Seq#:26; N Pos. 517, 622, 630, 640, 687
Seq#:27; N Pos. 9, 384, 393, 413, 465
Seq#:28; N Pos. 17, 23, 392, 491, 493, 496, 514, 527, 571, 617, 625, 638
Seq#:29; N Pos. 8, 112, 166, 213, 239, 340, 427, 448, 503, 537, 553, 555, 560, 566, 578
Seq#:29; N Pos. 596, 606, 615, 626, 638, 644, 658, 662, 666

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/08/2007
PATENT APPLICATION: US/10/563,637 TIME: 11:51:10

Input Set : A:\19460.seq.txt
Output Set: N:\CRF4\02082007\J563637.raw

Seq#:30; N Pos. 14,442,445,463,471,490,495,510,571,584,599,618

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/563,637

DATE: 02/08/2007

TIME: 11:51:10

Input Set : A:\19460.seq.txt

Output Set: N:\CRF4\02082007\J563637.raw

L:30 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:87 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:120
M:341 Repeated in SeqNo=2
L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:60
M:341 Repeated in SeqNo=5
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
M:341 Repeated in SeqNo=7
L:361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:60
M:341 Repeated in SeqNo=8
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
M:341 Repeated in SeqNo=9
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:60
M:341 Repeated in SeqNo=11
L:511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
M:341 Repeated in SeqNo=12
L:564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
M:341 Repeated in SeqNo=13
L:627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:60
M:341 Repeated in SeqNo=14
L:688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:60
M:341 Repeated in SeqNo=15
L:723 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:120
M:341 Repeated in SeqNo=16
L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:600
L:841 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
M:341 Repeated in SeqNo=18
L:902 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:60
M:341 Repeated in SeqNo=19
L:977 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:720
M:341 Repeated in SeqNo=20
L:1014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
M:341 Repeated in SeqNo=21
L:1047 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
M:341 Repeated in SeqNo=22
L:1100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:480
M:341 Repeated in SeqNo=23
L:1121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
M:341 Repeated in SeqNo=24
L:1172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:420
M:341 Repeated in SeqNo=25
L:1211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:480
M:341 Repeated in SeqNo=26
L:1232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/563,637

DATE: 02/08/2007

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Input Set : A:\19460.seq.txt

Output Set: N:\CRF4\02082007\J563637.raw

M:341 Repeated in SeqNo=27

L:1263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0